

What is claimed is:

1. (Currently amended) In a building with multiple walls and multiple floors and a heating, ~~cooling~~ ventilating, air-conditioning (HVAC) system, ~~for controlling temperature, ventilation or humidity~~ an internal building pressure apparatus comprising:

- a) at least one pressure sensor per floor on at least ~~more than one~~ two of said multiple floors;
- b) a connection means for connecting to the pressure sensors; and
- c) an analysis means connected to said pressure sensors for receiving input from said pressure sensors and comparing at least one pressure reading from one floor with another pressure reading from at least one of the other multiple floors of said building and for providing sensor data output.
- d) ~~a control system connected to said analysis means and to said HVAC system wherein said control system regulates pressure on each floor by controlling the operation of the HVAC system so as to attain a desired pressure on at least one floor.~~

2. (Canceled)

3. (Original) The apparatus of claim 1 wherein said building includes multiple floors and said analysis means provides sensor data output from a group of outputs including sensor data output from adjacent floors and sensor data output from non-adjacent floors.

4. (Currently amended) The apparatus of claim 1 wherein said sensor data output includes output from a group including maximum pressure, minimum pressure, average pressure and pressure in-between maximum

and minimum, for a particular floor, for a portion of a particular floor and the building as a whole.

5. (Original) The apparatus of claim 1 further comprising at least one pressure sensor outside of said building and wherein said sensor data output includes output from a group including total internal building pressure, internal pressure of a particular floor, internal pressure of a portion of a particular floor and outside pressure.

6. (Original) The apparatus of claim 1 wherein said sensor data output includes output from a group including within wall pressure only and between floor pressure only.

7. (Original) The apparatus of claim 1 wherein element a) includes a plurality of pressure sensors per floor.

8. (Original) The apparatus of claim 1 wherein element a) includes pressure sensors on walls, floors and ceilings.

9. (Currently amended) The apparatus of claim 1 wherein said at least one pressure sensor is placed in a location selected from a group including within a wall cavity, within a floor cavity, within a ceiling cavity, in a room, corridor, hall and foyer and any other interstitial space of said building.

10. (Currently amended) In a building with multiple walls and multiple floors and a heating, ~~cooling~~ ventilating, air-conditioning (HVAC) system ~~for controlling temperature, ventilation or humidity~~, an internal building pressure apparatus comprising:

- a) at least one pressure sensor on at least ~~more than one~~ two of said multiple floors;
- b) a ~~connector connecting~~ connection to the pressure sensors; and
- b) an analyzer connected to said pressure sensors for receiving input from said pressure sensors and comparing at least one pressure reading from one floor with another pressure reading from at least one of the other multiple floors of said building and for providing sensor data output: *and*.
- c) ~~a controller connected to the analyzer for controlling the pressure in said building in response to sensor data output from said analyzer by controlling the operation of the HVAC system so as to attain a desired pressure on at least one of said multiple floors;~~

11. (Canceled)

12. (Original) The apparatus of claim 10 wherein said building includes multiple floors and said analyzer provides sensor data output from a group of outputs including sensor data output from adjacent floors and sensor data output from non-adjacent floors.

13. (Currently amended) The apparatus of claim 10 wherein said sensor data output includes output from a group including maximum pressure, minimum pressure, average pressure and pressure in-between maximum and minimum, for a particular floor, for a portion of a particular floor and the building as a whole.

14. (Original) The apparatus of claim 10 further comprising at least one pressure sensor outside of said building and wherein said sensor data

output includes output from a group including total internal building pressure, internal pressure of a particular floor, internal pressure of a portion of a particular floor and outside pressure.

15. (Original) The apparatus of claim 10 wherein said sensor data output includes output from a group including within wall pressure only and between floor pressure only.

16. (Original) The apparatus of claim 10 wherein element a) includes a plurality of pressure sensors per floor.

17. (Original) The apparatus of claim 10 wherein element a) includes pressure sensors on walls, floors and ceilings.

18. (Currently amended) The apparatus of claim 10 wherein said at least one pressure sensor is placed in a location selected from a group including within a wall cavity, within a floor cavity, within a ceiling cavity, in a room, corridor, hall and foyer and any other interstitial space of said building.

19. (Currently amended) In a building with multiple walls and multiple floors and a heating, ~~cooling ventilating~~, air-conditioning (HVAC) system ~~for controlling temperature, ventilation or humidity, a method of controlling an~~ internal building pressure method, the method comprising the steps of:

- a) providing at least one pressure sensor on at least ~~more than one~~ two of said multiple floors;
- b) connecting to the pressure sensors;
- c) attaching an analyzer to said pressure sensors for receiving input

from said pressure sensors and comparing at least one pressure reading from one floor with another pressure reading from at least one of the other multiple floors of said building and for providing sensor data output; and.

d) ~~connecting a controller to the analyzer and the HVAC system and regulating the pressure in said building on each floor in response to sensor data output from said analyzer by controlling the operation of the HVAC system so as to attain a desired pressure on at least one of said multiple floors.~~

20. (Withdrawn)

21. (Original) The method of claim 19 wherein said building includes multiple floors and said analyzer provides sensor data output from a group of outputs including sensor data output from adjacent floors and sensor data output from non-adjacent floors.

22. (Currently amended) The method of claim 19 wherein said sensor data output includes output from a group including maximum pressure, minimum pressure, average pressure and pressure in-between maximum and minimum, for a particular floor, for a portion of a particular floor and the building as a whole.

23. (Original) The method of claim 19 further comprising the step of providing at least one pressure sensor outside of said building and wherein said sensor data output includes output from a group including total internal building pressure, internal pressure of a particular floor, internal pressure of a portion of a particular floor and outside pressure.

24. (Original) The method of claim 19 wherein said sensor data output includes output from a group including within wall pressure only and between floor pressure only.

25. (Original) The method of claim 19 wherein step a) includes providing a plurality of pressure sensors per floor.

26. (Original) The method of claim 19 wherein step a) includes providing pressure sensors on walls, floors and ceilings.

27. (Currently amended) The method of claim 19 further comprising the step of placing pressure sensors at locations selected from a group including within a wall cavity, within a floor cavity, within a ceiling cavity, in a room, corridor, hall and foyer and any other interstitial space of said building.

28. (New) The apparatus of claim 1 further comprising the steps of attaching a controlling means to the analyzing means and the HVAC system and controlling the pressure on at least one of the multiple floors in response to sensor data output from said analyzer by controlling the operation of the HVAC system so as to attain a desired pressure on at least one of said multiple floors.

29. (Currently amended) The apparatus of claim 1 ~~wherein element a)~~ involves further comprising the step of providing at least one dynamic pressure sensor to measure the direction and velocity of air as it flows between at least two adjacent floors of said multiple floors and element c) includes analyzing this dynamic pressure relationship.

30. (Currently amended) The apparatus of claim 1 ~~wherein element a)~~
~~involves further comprising the step of providing said at least one~~ dynamic
pressure sensor between non-adjacent floors, of said multiple floors,
utilizing tubes or the like between these non-adjacent floors to allow them
to communicate their dynamic pressure difference and element c)
includes analyzing this dynamic pressure relationship.

31. (Currently amended) The apparatus of claim 1 ~~wherein further~~
comprising the step of providing at least one dynamic skin pressure
sensor and said sensor data output includes choosing the output from a
group including dynamic building skin pressure or between floor dynamic
pressure and element c) includes analyzing this dynamic pressure
relationship.

32. (New) The apparatus of claim 31 wherein a plurality of dynamic
pressure sensors are utilized

33. (New) The apparatus of claim 1 utilizing a computer.

34. (New) The apparatus of claim 1 utilizing computer readable data
storage medium to store the instructions.

35. (New) The apparatus of claim 10 further comprising the steps of
attaching a controller to the analyzer and the HVAC system and
controlling the pressure on at least one of the multiple floors in response to
sensor data output from said analyzer by controlling the operation of the
HVAC system so as to attain a desired pressure on at least one of said
multiple floors.

36. (Currently amended) The apparatus of claim 10 ~~wherein element a)~~

~~involves further comprising the step of~~ providing at least one dynamic pressure sensor to measure the direction and velocity of air as it flows between at least two adjacent floors of said multiple floors and element c) includes analyzing this dynamic pressure relationship.

37. (Currently amended) The apparatus of claim 10 ~~wherein element a) involves further comprising the step of providing said~~ at least one dynamic pressure sensor between non-adjacent floors, of said multiple floors, utilizing tubes or the like between these non-adjacent floors to allow them to communicate their dynamic pressure difference and element c) includes analyzing this dynamic pressure relationship.

38. (Currently amended) The apparatus of claim 10 ~~wherein~~ further comprising the step of providing at least one dynamic skin pressure sensor and said sensor data output includes choosing the output form a group including dynamic building skin pressure or between floor dynamic pressure and element c) includes analyzing this dynamic pressure relationship.

39. (New) The apparatus of claim 38 wherein a plurality of dynamic pressure sensors are utilized

40. (New) The apparatus of claim 10 utilizing a computer.

41. (New) The apparatus of claim 10 utilizing computer readable data storage medium to store the instructions.

42. (New) The method of claim 19 further comprising the steps of attaching a controller to the analyzer and the HVAC system and controlling the pressure on at least one of the multiple floors in response to

sensor data output from said analyzer by controlling the operation of the HVAC system so as to attain a desired pressure on at least one of said multiple floors.

43. (Currently amended) The method of claim 19 ~~wherein element a)~~ involves further comprising the step of providing at least one dynamic pressure sensor to measure the direction and velocity of air as it flows between at least two adjacent floors of said multiple floors and element c) includes analyzing this dynamic pressure relationship.

44. (Currently amended) The method of claim 19 ~~wherein element a)~~ involves further comprising the step of providing said at least one dynamic pressure sensor between non-adjacent floors, of said multiple floors, utilizing tubes or the like between these non-adjacent floors to allow them to communicate their dynamic pressure difference and element c) includes analyzing this dynamic pressure relationship.

45. (Currently amended) The method of claim 19 ~~wherein~~ further comprising the steps of providing at least one dynamic skin pressure sensor and said sensor data output includes choosing the output from a group including dynamic building skin pressure or between floor dynamic pressure difference and element c) includes analyzing this dynamic pressure relationship.

46. (New) The method of claim 45 wherein a plurality of dynamic pressure sensors are utilized

47. (New) The method of claim 19 utilizing a computer.

48. (New) The method of claim 19 utilizing computer readable data storage medium to store the instructions.